Mountain States ACCUTEST LABORATORIES

02/05/15

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

7591

Accutest Job Number: D67110

Sampling Date: 01/29/15

Report to:

K.P. Kauffman Company, Inc.
1675 Broadway Suite 2800
Denver, CO 80202-4628
mhattel@msn.com; slaramesa@kpk.com

ATTN: Susana Lara-Mesa

Total number of pages in report: 29

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

Sections: 1 2 3 4 5 6 7

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Sample Summary

K.P. Kauffman Company, Inc.

Job No: D67110

Wattenberg Tank
Project No: 7591

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D67110-1	01/29/15	09:55	MDH	01/29/15	AQ	Water	TANK-1
D67110-1F	01/29/15	09:55	MDH	01/29/15	AQ	Water Filtered	TANK-1

ACCUTEST LABORATORIES

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CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffman Company, Inc.	**Job No**	D67110
Site:	Wattenberg Tank	**Report Date**	2/5/2015 10:48:23 AM

On 01/29/2015, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D67110 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP15129

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D67113-2FMS, D67113-2FMSD, D67113-2FSDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Magnesium, Sodium are outside control limits for sample MP15129-SD1. Probable cause due to sample homogeneity.
- MP15129-SD1 for Magnesium, Sodium: Serial dilution indicates possible matrix interference.

Wet Chemistry By Method ASTM D287

Matrix: ALL **Batch ID:** GN28437

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP14523

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix: AQ **Batch ID:** GP14521

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- D67110-1 for Sulfate: Elevated detection limit due to matrix interference.
- D67110-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix: AQ **Batch ID:** GN28466

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D67058-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix:	AQ	Batch ID:	GP14551

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D66817-1DUP, D66817-1MS, D66817-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix:	AQ	Batch ID:	GN28478

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D67110-1 Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D67110
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 01/29/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D67110-1	TANK-1					
Chloride		11900	500		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		11.9	4.8		mg/l	EPA 1664A
Nitrogen, Nitrate		1.1	1.0		mg/l	EPA 300.0/SW846 9056
Solids, Total Dissolved		20200	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0107				ASTM D287
Total Organic Carbon		231	12		mg/l	SM 5310B-2011
pH [a]		7.02			su	SM4500HB+-2011/9040C
D67110-1F	TANK-1					
Calcium		251000	20000		ug/l	SW846 6010C
Magnesium		32200	10000		ug/l	SW846 6010C
Potassium		129000	50000		ug/l	SW846 6010C
Sodium		7320000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

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Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D67110-1	Date Sampled:	01/29/15
Matrix:	AQ - Water	Date Received:	01/29/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	11900	500	mg/l	1000	01/29/15 19:11	JB	EPA 300.0/SW846 9056
HEM Oil and Grease	11.9	4.8	mg/l	1	01/30/15	SWT	EPA 1664A
Nitrogen, Nitrate	1.1	1.0	mg/l	100	01/29/15 14:20	JB	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 4.0	4.0	mg/l	1000	01/29/15 19:11	JB	EPA 300.0/SW846 9056
Solids, Total Dissolved	20200	10	mg/l	1	02/02/15	JF	SM 2540C-2011
Specific Gravity by Hydromete	1.0107			1	01/29/15	MM	ASTM D287
Sulfate [a]	< 50	50	mg/l	100	01/29/15 14:20	JB	EPA 300.0/SW846 9056
Total Organic Carbon	231	12	mg/l	11.9	02/03/15 20:43	AK	SM 5310B-2011
pH [b]	7.02		su	1	02/02/15 14:10	TB	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D67110-1F	Date Sampled:	01/29/15
Matrix:	AQ - Water Filtered	Date Received:	01/29/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	251000	20000	ug/l	5	01/30/15	02/02/15	KV	SW846 6010C [1]	SW846 3010A [2]
Magnesium	32200	10000	ug/l	5	01/30/15	02/02/15	KV	SW846 6010C [1]	SW846 3010A [2]
Potassium	129000	50000	ug/l	5	01/30/15	02/02/15	KV	SW846 6010C [1]	SW846 3010A [2]
Sodium	7320000	20000	ug/l	5	01/30/15	02/02/15	KV	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5733
(2) Prep QC Batch: MP15129

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX. 303-425-6854

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D67110

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC				LAB USE ONLY
	TANK - I		1/29/15	955	MDH	LIQ	7	X				X				X	X	X	X	X	X	X				01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)

- [X] Std. 10 Business Days

Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [x] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] PDF

Comments / Remarks

PDF copy to Mike Hattel with APEX at mhattel@msn.com

PDF copy to Susan Lara-Mesa with KPK at Slaramesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	1/29/15 1055	1 [signature] 1/29/15 1055	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp.

HD 4.9

5.1

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D67110: Chain of Custody
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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D67110 **Client:** KPK **Project:**

Date / Time Received: 1/29/2015 10:55:00 AM **Delivery Method:** **Airbill #'s:** HD

Cooler Temps (Initial/Adjusted): #1: (4.9/4.9):

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Bar Therm;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☐
2. Trip Blank listed on COC:	☐		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☐

Comments

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

5.1
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Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

D67110: Chain of Custody
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Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	RL	IDL	MDL	MB raw	MB final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.9	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	25.5	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	16.7	<200
Manganese	5.0	.5	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	15.2	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	-64	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP15129: D67110-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

6.1.1

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	D67113-2F Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	8250	34600	25000	105.4	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron					
Lead	anr				
Lithium					
Magnesium	13300	40600	25000	109.2	75-125
Manganese					
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	2200	31700	25000	118.0	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	610000	635000	25000	100.0	75-125
Strontium					
Thallium	anr				
Tin					
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP15129: D67110-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	D67113-2F Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	D67113-2F Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	8250	35600	25000	109.4	2.8	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium	13300	40400	25000	108.4	0.5	20
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	2200	31600	25000	117.6	0.3	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	610000	634000	25000	96.0	0.2	20
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP15129: D67110-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	D67113-2F Original MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2.9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	27000	25000	108.0	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	27300	25000	109.2	80-120
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	26600	25000	106.4	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	26300	25000	105.2	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP15129: D67110-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

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SERIAL DILUTION RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

Metal	D67113-2F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	8250	8590	4.1	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	13300	15600	17.6*(a)	0-10
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	2200	2350	7.0	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	610000	731000	19.8*(a)	0-10
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP15129: D67110-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP15129
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/30/15

	D67113-2F		QC
Metal	Original SDL 1:5	%DIF	Limits

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

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Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP14521/GN28443	0.050	0.0	mg/l	0.5	0.510	102.0	90-110%
Chloride	GP14521/GN28443	0.50	0.0	mg/l	5	5.15	103.0	90-110%
Fluoride	GP14521/GN28443	0.10	0.0	mg/l	1	0.997	99.7	90-110%
HEM Oil and Grease	GP14523/GN28444	5.0	0.0	mg/l	40	35.5	88.8	78-114%
Nitrogen, Nitrate	GP14521/GN28443	0.010	0.0	mg/l	0.1	0.104	104.0	90-110%
Nitrogen, Nitrite	GP14521/GN28443	0.0040	0.0	mg/l	0.05	0.0458	91.6	90-110%
Solids, Total Dissolved	GN28466	10	0.0	mg/l	400	401	100.3	90-110%
Sulfate	GP14521/GN28443	0.50	0.0	mg/l	5	4.91	98.2	90-110%
Total Organic Carbon	GP14551/GN28516	1.0	0.0	mg/l	8.82	9.20	104.3	90-110%
pH	GN28478			su	8.00	7.98	99.8	99.1-100.9%

Associated Samples:
Batch GN28466: D67110-1
Batch GN28478: D67110-1
Batch GP14521: D67110-1
Batch GP14523: D67110-1
Batch GP14551: D67110-1
(*) Outside of QC limits

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BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP14523/GN28444	mg/l	40	38.1	7.1	20%

Associated Samples:
Batch GP14523: D67110-1
(*) Outside of QC limits

7.2

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN28466	D67058-1	mg/l	524	528	0.8	0-20%
Total Organic Carbon	GP14551/GN28516	D66817-1	mg/l	3.5	3.4	2.9	0-20%

Associated Samples:
Batch GN28466: D67110-1
Batch GP14551: D67110-1
(*) Outside of QC limits

7.3
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Carbon	GP14551/GN28516	D66817-1	mg/l	3.5	10	12.9	94.0	80-120%

Associated Samples:
Batch GP14521: D67110-1
Batch GP14551: D67110-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D67110
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Total Organic Carbon	GP14551/GN28516	D66817-1	mg/l	3.5	10	12.7	1.6	20%

Associated Samples:
Batch GP14521: D67110-1
Batch GP14551: D67110-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
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